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Appendix 7

7.1 SC7000 Test Procedure

The SC7000 offers some facilities which are useful for testing.

Always perform the SC7000 test procedure in case you are not able to print.

If you are able to print but get unexpected results, make sure to print all test pages from within the SC7000 utility. Carefully check the results of the test pages. Have all test printouts at hand before calling your RISO dealer.

7.1.1 Check The Basics

Check if your computer displays an error message.

Check if the RISOGRAPH indicates an error condition at the operator panel. Check if the RISOGRAPH is online, i.e. if interface mode is enabled.

Check if all control lights of the SC7000 are illuminated green. If they are not, see the section on the operator panel of the *SC7000 User Manual* to determine what they indicate.

Check if all cables are plugged in correctly and if all devices are switched on. You will probably not believe that this might be the problem, but please do this!

If you cannot find the problem, reset the system.

7.1.2 Reset The System

If you encounter a printing problem which cannot be solved immediately, start at zero again:

Switch off all devices including SC7000, RISOGRAPH, and your computer. Wait a few seconds and switch them on again.

If the problem remains, perform the self test to localize the defective component.

7.1.3 Perform The Self Test

Switch off your SC7000 and the RISOGRAPH. Remove all cables except the mains supply of the two devices and the video cable which connects SC7000 and RISOGRAPH. Make sure that these remaining cables are plugged in properly.

Switch the RISOGRAPH on again.

Hold down the key at the SC7000 operator panel while switching the SC7000 on again. Note that the upper control light is illuminated red. Keep on holding down the key until the upper control light starts to flash red slowly, then release the key.

The upper control light must continue to flash red slowly. Wait for the self test page to be printed.

If the self test page fails to print, either the SC7000 or RISOGRAPH or the video cable are defective. Contact your RISO dealer.

If the self test page prints correctly, the problem is somewhere in the field of communication between computer and SC7000. Try to locate the communication problem.

7.1.4 Locate The Communication Problem

Reconnect your computer system to the SC7000 step by step. Did anybody change anything in the computer system when you encountered the problem for the first time?

When trying to establish communication, use the SC7000 utility to print a test page. If you are unable to use the SC7000 utility on your computer, use programs like SimpleText, Write or WordPad for testing. Try to involve as little software as possible.

If you are using Ethernet, carefully check if your network cabling complies to the rules described in the network section of this manual.

Are there other devices connected to the network? Can you use these devices to prove that the network works, in particular between your computer and the SC7000?

If you are using the parallel or serial port, check your cables. Did they work before the problem occurred?

If you suspect a cable problem, change the cable. If your cable didn't ever work in exactly the same configuration, check if it has a suitable pin assignment.

Check all communication parameters as described in the system setup section of this manual. Did anybody change the SC7000 setup?

If you suspect a configuration problem, restore the SC7000 factory defaults.

7.1.5 Restore The Factory Defaults

Switch off the SC7000 and wait a few seconds.

Hold down the key at the SC7000 operator panel while switching the SC7000 on again. Note that the upper control light is illuminated red. Keep on to hold down the key.

Note that the upper control light starts to flash red slowly. Continue to hold down the key.

Hold down the key until the upper control light flashes twice as fast as before. Release the key.

The SC7000 restores the factory defaults and performs a restart. Wait until the upper control light becomes green.

Reconfigure your computer to use the default communication parameters.

7.1.6 Contact Your RISO Dealer

If you cannot eliminate the problem by the procedure described above, contact your RISO dealer.

7.2 Test Pages

The SC7000 is provided with six different built-in test pages. The test pages may be printed by means of the SC7000 utility software. Additionally, one of the test pages (the self test page) can be printed without a computer using the test procedure described above.

7.2.1 Self Test Page

The self test page contains some artwork and the following general information:

System Software Version
Serial number
Printer Language versions
Number of fonts
Amount of installed memory
Hard disk space
EtherTalk printer name

7.2.2 Settings Page

The settings page is a list containing the following information:

- Printer name
- Serial number
- Number of fonts
- System Software Version
- General information
- Communication Setup information
  - EtherTalk setup information
  - Parallel port setup information
  - Serial port setup information
  - TCP/IP setup information
- RISOGRAPH setup information
- LaserJet Emulation (PCL) Setup information
- Scanning information

7.2.3 Font List Page

The font list page is a complete list of installed PostScript fonts. Additionally, it contains the following information:

- Printer name
- Serial number
- Number of fonts
- Number of font files
- Font Names
- Systen Software Version

7.2.4 Sample Page

The sample page consists of text, artwork and images. It includes:

- Serial number
- System Software Version

7.2.5 PostScript Font Sample Page

The font sample page is a complete list of installed PostScript fonts. In contrast to the font list page, each font prints in its original typeface which takes some more time for printing. Additionally, the font sample page contains the following information:

- Printer name
- Serial number
- Number of fonts
- Number of font files
- Font samples
- System Software Version

7.2.6 PCL Font Sample Page

The PCL font sample page is a complete list of installed PCL fonts. Each PCL font prints in its original typeface. Additionally, the PCL font sample page contains the following information:

Number of fonts
Font samples

7.3 Factory Default Settings

The SC7000 ships from the factory with preconfigured settings. Factory defaults may be restored either by means of the SC7000 utility software or from the SC7000 operator panel.

The section on the SC7000 utility in this manual describes how to restore factory defaults using the utility. To restore factory defaults without the need to connect a computer, refer to the section about the operator panel in the *SC7000 User Manual*.

This paragraph lists most parameters which will be affected by restoring factory defaults and the respective default values.

All system, user, and device parameters which are marked to be persistent across power cycles or printer restarts will be affected by restoring the factory defaults, except the PageCount.

7.3.1 General Defaults

Proof Copies	1
Printer Language	Auto Select
Recovery Mode	Safer
Auto Print	Enabled

7.3.2 Printing Defaults

Copies	1
Confidential Mode	Disabled
Print Speed	Standard
Print Density	Standard
Sort Mode	None
Stop/Pause Before Next Master	Disabled
Print Pages	Print All Pages

7.3.3 PostScript Defaults

ABS Screening	Enabled
Job Timeout	0
Wait Timeout	60

7.3.4 Communication Defaults

7.3.4.1 EtherTalk

Printer Name	SC7000
AppleTalk Zone	*

7.3.4.2 TCP/IP

IP Address	128.1.0.64
Netmask	255.255.0.0

7.3.4.3 Serial Port

Baud Rate	9600
Flow Control	Xon/Xoff
Data Bits	8
Stop Bits	1
Parity	None

7.3.4.4 Printing Port

Printing Port	Auto Select

7.3.4.5 SCSI ID

SCSI ID	5

7.3.5 LaserJet Emulation (PCL)

LaserJet Emulation	4V (PCL 5e)
Form Length	64
Font Number	0
Pitch	10.00
Point size	12
Symbol Set	Roman-8
I/O Time-out	15

7.4 Connector Pin Assignments

7.4.1 Serial Port

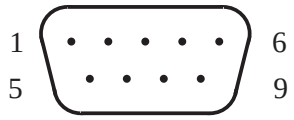

Figure 7.1: Serial Port D-Sub 9-pin Plug

Pin No.	Signal Name	
1	Ring Indicator	(Input)
2	Request To Send	(Output)
3	Signal Ground	
4	*Transmit Data	(Output)
5	Data Carrier Detect	
6	Clear To Send	(Input)
7	Data Set Ready	(Input)
8	Data Terminal Ready	(Output)
9	*Receive Data	(Input)

7.4.2 Parallel Port

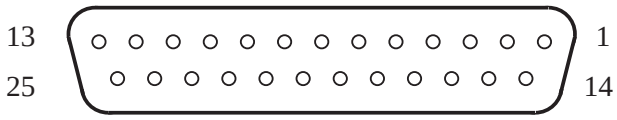

Figure 7.2: Parallel Port D-Sub 25-pin Receptacle

Pin No.	Signal Name (mode dependent)	
1	*Strobe	(Input)
2	Data 1 (LSB)	(Input)
3	Data 2	(Input)
4	Data 3	(Input)
5	Data 4	(Input)
6	Data 5	(Input)
7	Data 6	(Input)
8	Data 7	(Input)
9	Data 8 (MSB)	(Input)
10	*Ack	(Output)
11	Busy	(Output)
12	Perror	(Output)
13	Select	(Output)
14	*AutoFd	(Input)
15	*Fault	(Output)
16	*Init	(Input)
17	*SelectIn	(Input)
18	Signal Ground (*Strobe)	
19	Signal Ground (Data 1 and Data 2)	
20	Signal Ground (Data 3 and Data 4)	
21	Signal Ground (Data 5 and Data 6)	
22	Signal Ground (Data 7 and Data 8)	
23	Signal Ground (Busy and *Fault)	
24	Signal Ground (Perror, Select and *Ack)	
25	Signal Ground (*AutoFd, *SelectIn and *Init)	

7.4.3 Network

7.4.3.1 10Base2

Figure 7.3: Ethernet 10Base2 BNC Receptacle

7.4.3.2 10BaseT

Figure 7.4: Ethernet 10BaseT RJ-45 Receptacle

Pin No.	Signal Name	
1	Transmit Data +	(Output)
2	Transmit Data –	(Output)
3	Receive Data +	(Input)
4	N.C	
5	N.C.	
6	Receive Data –	(Input)
7	N.C.	
8	N.C.	

7.4.3.3 AUI

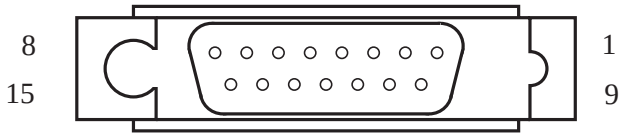

Figure 7.5: Ethernet AUI D-Sub 15-pin Receptacle

Pin No.	Signal Name	
1	Collision Detect Shield	
2	Collision Detect +	(Input)
3	Transmit Data +	(Output)
4	Receive Data Shield	
5	Receive Data +	(Input)
6	Ground	
7	N.C.	
8	Shield	
9	Collision Detect –	(Input)
10	Transmit Data –	(Output)
11	Transmit Data Shield	
12	Receive Data –	(Input)
13	+ 12V	(Output)
14	Voltage Shield	
15	N.C.	

7.4.4 SCSI Port

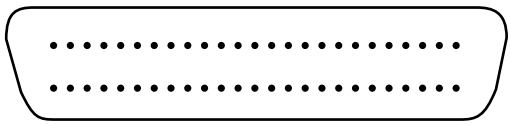

Figure 7.6: SCSI 50-pin Receptacle

Pin No.	Signal Name
1	Ground
2	Ground
3	Ground
4	Ground
5	Ground
6	Ground
7	Ground
8	Ground
9	Ground
10	Ground
11	Ground
12	Ground
13	Open
14	Ground
15	Ground
16	Ground
17	Ground
18	Ground
19	Ground
20	Ground
21	Ground
22	Ground
23	Ground
24	Ground
25	Ground
26	-DB(0)
27	-DB(1)
28	-DB(2)
29	-DB(3)
30	-DB(4)
31	-DB(5)
32	-DB(6)
33	-DB(7)
34	-DB(P)

35	Ground
36	Ground
37	Reserved
38	Term Power
39	Reserved
40	Ground
41	-ATN
42	Ground
43	-BSY
44	-ACK
45	-RST
46	-MSG
47	-SEL
48	-C/D
49	-REQ
50	-I/O

7.5 Specifications

Type	External unit type
PDL	Adobe PostScript Level 2 HP-PCL 5/5e
Emulation Printer	HP LaserJet 4V/III
Operating System	Mac OS (System 7.1 or above / Quick Draw) DOS, Windows3.1, Windows95
Communication Port	Ethernet (10BaseT/2, AUI) Parallel (IEEE 1284), Serial (RS-232C), SCSI
Network Protocol	Phase 2 Apple EtherTalk, TCP/IP
Memory	16MB (standard) *two slots open
HDD	540MB (Disk capacity) 300MB available for user
Resident Font	PostScript 35 fonts LaserJet 4V 42 fonts LaserJet III 15 fonts
Panel	1 key (multi-function key) 3 LEDs (data/error, power, power of Risograph)
Resolution	depend on the connected Risograph
Paper size	depend on the connected Risograph
Physical Dimensions	14.0 inch x 6.7 inch x 16.7 inch (356 mm x 171 mm x 425 mm)
Weight	Approximate 20 lb (9.0 kg)
Power Requirement	100-120/200-240V, 4/2.5A, 50/60 Hz
Temperature	Operation: +40°F to +95°F (5°C to 40°C) Storage: –4°F to +140°F (–20°C to 60°C)
Humidity	Operation: 40% RH to 70% RH (non-condensing) Storage: 20% RH to 90% RH (non-condensing)